



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/894,397 | 06/28/2001 | Xiaoling Wang | 27550 | 6431 |
| 7590 | 06/30/2005 | | EXAMINER | |
| Mr. Walter J. Tencza Jr. Suite 3 10 Station Place Metuchen, NJ 08840 | | | SHANNON, MICHAEL R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2614 | |
| DATE MAILED: 06/30/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------|----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/894,397 | WANG, XIAOLING |
| | Examiner | Art Unit |
| | Michael R. Shannon | 2614 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 June 2001.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-46 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-46 is/are rejected.
 7) Claim(s) 12 and 27 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 28 June 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11 and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The last line of each claims states, "wherein the first number and the second number are **different**". There is no basis in the disclosure to suggest that the first number of video frames (unmodified transition frames) and the second number of video frames (modified transition frames) are different. In fact, the first full paragraph of page 15 states "For preserving the content length, the number of generated content-dependent transition video frames for each transition may be **equal** to the number of the video frames in each original commercial transition". Nowhere does it say that the number of frames in each group may be different. Claims 10 and 28 recite the fact that the number of frames is equal and will therefore be examined, however, claims 11 and 29 will not and cannot be examined based on the content of the disclosure.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 10, 12-23, 28, and 30-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Spehr (US Publication 2003/0192046), cited by examiner.

Regarding claim 1, the claimed “apparatus comprising a commercial transition modification device that replaces a plurality of commercial transitions in a video signal with a plurality of modified commercial transitions to form a modified video signal” is met by paragraph 0016, wherein Spehr discloses a way to alter the transitions from normal programming to advertising by substitution of frames with morphing, overlays, or oscillating frames, in order to “confuse” the advertising block suppression program and therefore display the advertisement to the viewer.

Regarding claim 2, the claimed “apparatus of claim 1 further comprising a commercial transition localization device that identifies the plurality of commercial transitions in the video signal and supplies data identifying the plurality of commercial transitions to the commercial transition modification device” is met by paragraph 0013, wherein Spehr discloses identification of the transitions between advertising blocks and

normal program parts and uses the identification information to substitute modified transitions, as discussed above.

Regarding claim 3, the claimed "apparatus of claim 1 wherein the plurality of commercial transitions includes transitions between commercial content portions of the video signal" is met by paragraph 0049, wherein Spehr discloses that the transitions between individual advertising spots in an advertising block can also be modified, in order to be effective in "confusing" the advertising block suppression program.

Regarding claim 4, the claimed "apparatus of claim 1 wherein the plurality of commercial transitions include transitions between commercial content portions and non-commercial content portions of the video signal" is met by paragraph 0013, wherein Spehr discloses identification and modification of transitions between advertising blocks and normal program parts.

Regarding claim 5, the claimed "apparatus of claim 1 wherein the plurality of modified commercial transitions cannot be detected by automated commercial detection" is met by paragraph 0016, wherein Spehr discloses that the "confused" advertising block suppression program cannot function to block commercials using this transition modification technique.

Regarding claim 10, the claimed "apparatus of claim 1 wherein each of the plurality of modified commercial transitions corresponds to one of the plurality of commercial transitions" is met by the inherent discussion in paragraph 0016, wherein Spehr discloses a "transitional time" that is between the program part and the advertising block and that the transitional time is used to substitute the morphed,

overlaid, or otherwise modified frames (indicating a one-to-one correspondence between unmodified frames and newly modified frames). Further, the claimed "each of the plurality of commercial transitions contains a set of a first number of video frames" is, again, met by the transitional time and the number of frames that inherently make up that transitional time. Furthermore, the claimed "each of the plurality of modified commercial transitions contains a set of the first number of video frames", is, again, met by the transitional time and the number of frames that inherently make up that transitional time (modified and unmodified frames having a one-to-one correspondence).

Regarding claim 12, the claimed "apparatus of claim 1 further wherein each of the plurality of modified commercial transitions is comprised of a content-dependent transition video frame" is met by the morphing technique, discussed in paragraph 0017, which is a way to modify the transition frames using information from the video signal (the morphing is dependent upon surrounding frames).

Regarding claim 13, the claimed "apparatus of claim 12 wherein each of the content-dependent transition video frames are generated by using video frames that are not blank or dark and are located immediately before and after a commercial transition" is met by the fact that the major star is located in front of a poster wall, the major star being chosen from a frame before the transition and the poster wall being chosen from a frame after the transition, making it virtually impossible to define the start of the advertising.

Regarding claim 14, the claimed "apparatus of claim 1 wherein each of the plurality of modified commercial transitions is comprised of a semi-content-dependent transition video frame" is met by the "cutout" scenario of paragraph 0017, wherein a major star is "cutout" from the movie and inserted into the advertisement.

Regarding claim 15, the claimed "apparatus of claim 14 wherein each semi-content-dependent transition video frame is generated by using video frames that are not blank or dark and located immediately before and after a commercial transition" is met by the "cutout" being taken from the movie that is currently being watched and mixed with an advertising frame, in order to replace the transition [paragraph 0017].

Regarding claim 16, the claimed "apparatus of claim 15 wherein each semi-content-dependent transition video frame offers a transition from a video scene before a commercial transition through a foreign video scene that is in general not related to a video scene before a commercial transition or a video scene after a commercial transition and to the video scene after a commercial transition; and wherein the said foreign video scene is in general not blank or dark" is met, again, by paragraph 0017 and the "cutout" from the movie, that is used to replace the transition.

Regarding claim 17, the claimed "apparatus of claim 1 further wherein each of the plurality of modified commercial transitions are comprised of a content-independent transition video frame that is not blank or dark" is met by paragraph 0018, wherein Spehr discloses replacing transition frames with a logo overlay, that is not dependant upon the video currently being watched.

Regarding claim 18, the claimed "apparatus of claim 17 wherein each of the plurality of modified commercial transitions are independent from the video frames immediately before and after a commercial transition" is met by paragraph 0018 and the logo overlay being generated independently from the video currently being watched.

Regarding the method of claim 19, see the above rejection for the apparatus of claim 1 used for carrying out the claimed method.

Regarding the method of claim 20, see the above rejection for the apparatus of claim 2 used for carrying out the claimed method.

Regarding the method of claim 21, see the above rejection for the apparatus of claim 3 used for carrying out the claimed method.

Regarding the method of claim 22, see the above rejection for the apparatus of claim 4 used for carrying out the claimed method.

Regarding the method of claim 23, see the above rejection for the apparatus of claim 5 used for carrying out the claimed method.

Regarding the method of claim 28, see the above rejection for the apparatus of claim 10 used for carrying out the claimed method.

Regarding the method of claim 30, see the above rejection for the apparatus of claim 12 used for carrying out the claimed method.

Regarding the method of claim 31, see the above rejection for the apparatus of claim 13 used for carrying out the claimed method.

Regarding the method of claim 32, see the above rejection for the apparatus of claim 14 used for carrying out the claimed method.

Regarding the method of claim 33, see the above rejection for the apparatus of claim 15 used for carrying out the claimed method.

Regarding the method of claim 34, see the above rejection for the apparatus of claim 16 used for carrying out the claimed method.

Regarding the method of claim 35, see the above rejection for the apparatus of claim 17 used for carrying out the claimed method.

Regarding the method of claim 36, see the above rejection for the apparatus of claim 18 used for carrying out the claimed method.

Regarding claims 37-46, the claims are met by paragraph 0025, wherein Spehr discloses that the efficiency of different methods for suppressing undesired transmission blocks is stored and assessed, and the manipulation is optimized (through some sort of self-testing and loop-back) with computer assistance on the basis of stored (in some sort of computer memory) efficiencies, in order to improve the performance. This is a self-learning feedback. In other words, the self-testing and self-learning feedback is used to test to see if the modified transitions are detectable by the advertising block suppression program, and if they are not, then the transition modification was successful, if the modified transitions are still detectable, then the feedback will function to re-do the modification and test again.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-9 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spehr (US Publication 2003/0192046), cited by examiner, in view of applicant's disclosure of the common knowledge in the art.

Regarding claims 6-9 and 24-27, Spehr teaches all of that which is discussed above with regards to claims 1 and 19. Spehr further discloses that known advertising suppression methods are used and reversed, in order to "confuse" the advertising suppression program. Paragraph 0013 states, "the suppression methods are overridden by the same means which they themselves use in order to distinguish between advertising blocks and normal program parts". While the Spehr reference does give some examples of features that can be identified, the Spehr reference, does not expressly disclose identifying features such as blank video frames. The applicant states, on page 1 of the "Background of the Invention" of the disclosure, that "typical commercial transition frames may include some low-level signals, such as blank or dark video frames, blank video frames followed by 'active scenes', blank frames followed by another blank frame with a certain timing interval that is typical to commercials, or low audio signals with dark video frames". Furthermore, the Spehr reference does teach the replacement of the detected transition frames with morphed, logo overlayed, or "cutout" frames as disclosed in paragraphs 0017-0018. Therefore, in view of the fact that the applicant states that blank and dark video frames could be used to detect commercial transitions, the examiner states that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use blank or dark video

frames for detecting transitions and modifying them according to the Spehr reference, in order to confuse "suppression methods" that are well known in the art.

Claim Objections

7. Claim 27 is objected to because of the following informalities: Claim 27 states "the method of claim 26 wherein inserting a non-dark video frame into each of the plurality of commercial transitions". This seems to be missing detail, the examiner has taken the claim to read similarly to claim 9, it corresponding apparatus claim.

Appropriate correction is required.

8. Claim 12 is objected to because of the following informalities: Claim 12 states "further wherein", which does not make grammatical sense. The examiner assumes this to read "wherein". Appropriate correction is required.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

Any response to this action should be mailed to:

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

Mail Stop _____

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

United States Patent and Trademark Office
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Some correspondence may be submitted electronically. See the Office's Internet Web site <http://www.uspto.gov> for additional information.

Or faxed to: (571) 273-8300

Hand-delivered responses should be brought to:

Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(571) 272-2600**.

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
June 24, 2005


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600